

MESOMYZOSTOMA KATOI, N. SP., AN INTERESTING
MYZOSTOME FOUND IN THE GONAD OF
COMANTHUS JAPONICUS

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ONE PLATE

(Received Aug. 3, 1933)

Mr. Kôjiro Katô, member of the Mitsui Institute of Marine Biology, during his stay at the Misaki Marine Biological Station, found four specimens of this new form in the gonad of a Crinoid, *Comanthus japonicus*, collected in a shallow water in the vicinity of the laboratory. He has kindly presented the specimens to me for study. I have further found two specimens referable to the same species in *Comanthus japonicus* from Tateyama Bay in April 1929.

It appears to me that the present form exhibits characters between those of *Protomyzostoma* and *Stelechopus*. I propose for it the new specific name, *Mesomyzostoma katoi*.

Diagnosis: Body flattened dorsoventrally, of a short band-like form, without tentacles on the periphery; parapodia in three to four pairs; suckers entirely absent; no male genital opening. Intestine divided only at the posterior end of stomach.

The body, fixed in Bouin's solution and preserved in alcohol, is in the form of a rather narrow short band, depressed dorsoventrally. The body is gradually attenuated to the anterior end, which is somewhat conically pointed. The presence of the hook is distinctly indicated by a blackish brown spot along the outer margin. There is no trace of cirri on the outer margin.

When in life, the body shows a kind of peristaltic movement. At the points where the hooks are situated the margins of the body are slightly projected laterally on both sides. The body is milky white in color, with light yellow alimentary canal running longitudinally along the median line and with light pinkish gonad on the middle, visible from exterior through the skin.

The dimensions of the preserved specimens vary as follows :

Specimen No.	Body length	Body breadth
1	4.5 mm	0.45 mm
2	4.2	0.4
3	3.5	0.75
4	2.3	0.8

The number of parapodia varies in the different specimens.

Three pairs of almost equal size occur in specimens Nos. 3 and 4, while four pairs are present in the specimens Nos. 1 and 2. When three pairs are developed, the first and third pairs are inserted near the border of the anterior and posterior halves of the body. When four pairs are developed, the first pair occurs near the level of the muscular pharynx, and the fourth pair near the end of stomach on the posterior part of the body. The second and third pairs occur at the point bisecting each of the anterior and posterior halves of the body.

The hook strongly bent at its end and having a pointed tip, measures 0.5 mm in length and 0.015 mm in breadth. The manubrium is broader, and roughly carinated on the outer margin of the bent end. It forms a somewhat irregular plate-like expansion, and measures on the average, 0.6 mm long and 0.045 mm broad. The sucker is entirely absent.

The mouth opening at the anterior end of the body leads into a well-developed muscular pharynx which has a rather long cubical outline. The pharynx is directly continuous with the stomach, which is a rather broad canal of considerable length, extending back to near the anus. The stomach gives off some lateral diverticula on either side of the posterior part of the body. The rectum, slightly broader than the end of the stomach, extends to the exterior at the posterior end of the body.

The testes are branched organs, arranged almost symmetrically on each side. Enclosed in the testicular follicles are numerous sperm-cells, showing several stages of development. The present species is probably a protandric hermaphrodite. In the large specimens examined we found only the male sex products mature.

Remark : As mentioned above, the present species shows characters intermediate between those of the species of *Protomyzostoma* and those of *Stelechopus*. It has a stomach with less numerously branched diverticula, and fewer parapodia (three to four pairs) than *Protomyzostoma*

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has. The sucker is entirely absent, as in *Stelechopus*. The present species closely resembles *Mesomyzostoma reichenspergeri* from Aru-Islands, but differs from it in the characters of hook apparatus and internal organs.

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PLATE 8

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- Fig. 1. Semidiagrammatic figure to show the organization of the species. Ventral view.
× 60.
- Fig. 2. Entire body, as seen from ventral side (left), and from dorsal side (right).
× 5.
- Fig. 3. Hook and manubrium. × 600.

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